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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/003,248	12/06/2001	Jean-Marie Blanchard	21065/0160	4517

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EXAMINER

GARCIA, ERNESTO

ART UNIT PAPER NUMBER

3679

DATE MAILED: 02/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application N .

10/003,248

Applicant(s)

BLANCHARD, JEAN-MARIE

Examiner

Ernesto Garcia

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 December 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 12-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 18-21 is/are allowed.
- 6) ☒ Claim(s) 1,2,5,12,13 and 16 is/are rejected.
- 7) ☒ Claim(s) 3,4,6,14,15,17 and 22 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A(1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper."

Applicant remarked in the response that an IDS was filled and considered by the examiner and thus did not understand the comments with regards to the listing of references. Applicant is correct in that the examiner considered the IDS. However, the specification contains other references not listed on the IDS. Therefore, unless the references have been cited by the examiner on form PTO-892 or in the IDS filled on 12/6/01, they have not been considered.

Claim Objections

Claim 22 is objected to because of the following informalities:

regarding claim 22, "the snap ring" should be --a snap ring-- as a snap ring has not been previously recited in claims 22 or 12. Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boyce et al., 5,988,364 (see marked-up attachment), in view of Ferreol-Ragotin, 5,458,431.

Regarding claim 1, Boyce et al., disclose, in Figure 4, a ball anchoring device comprising a first part **6**, a second part **54**, a generally cylindrical lock body **20**, radial holes **44a,44b**, a locking piston **30**, an axially movable spring thrust element **26**, and balls **46a,46b**. The first part **6** and the second part **54** feature surfaces **A100** that are applied against each other. The lock body **20** has a central bore **28** bounded by an annular wall **22**. The radial holes **44a,44b** are formed in the annular wall **22**. The piston **30** slides axially within the central bore **28** between a released position and a locked position. The piston **30** has a head **32**. A first hole **50b**, formed in the first part **6**, is positioned in coaxial relationship with a second hole **56** formed in the second part **54**. The lock body **20** is received in the first hole **50b** and the second hole **56**. The spring

thrust element **26** extends outwardly from the lock body **20** and bears against a periphery **52** of the first hole **50b**. The flange **24** extends outwardly from the lock body **20** and bears against the spring thrust element **26**. The balls **46a,46b** protrude radially outwards from the lock body **20**, under a free surface **A15** of the second part **54**, in angular contact with an edge **A16** of the second hole **56** opening into the free surface **A15** of the second part **54**, and bears against a lateral retaining surface **A17** of the head **32**. Under an effect of an axial thrust applied to the balls **46a,46b** by the body through a load applied to the flange by the spring thrust element, contact of each of the balls **46a,46b** on the lateral retaining surface maintains the piston **30** in a locked position.

However, the lateral retaining surface **A17** does not display, in an area of contact of each of the balls **46a,46b**, a gradient. Ferreol-Ragotin teaches in Figure 8 a lateral retaining surface **12'A** displaying, in an area of contact of each of the balls **13'**, a gradient to retain a ball anchoring system in a locked position. Therefore, as taught by Ferreol-Ragotin, it would have been obvious to one of ordinary skill in the art at the time the invention was made to display the lateral retaining surface **A17**, in an area of contact, into the gradient in order to maintain the ball anchoring system of Boyce et al. in a locked position.

Regarding claim 12, Boyce et al., disclose, in Figure 4, a ball anchoring device comprising a first part **6**, a second part **54**, a generally cylindrical lock body **20**, radial holes **44a,44b**, a locking piston **30**, an axially movable spring thrust element **26**, and

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balls **46a,46b**. The lock body **20** has a central bore **28** bounded by an annular wall **22**. The radial holes **44a,44b** are formed in the annular wall **22**. The piston **30** slides axially within the central bore **28** between a released position and a locked position. The piston **30** has a head **32**. A first hole **50b**, formed in the first part **6**, is positioned in coaxial relationship with a second hole **56** formed in the second part **54**. The lock body **20** is received in the first hole **50b** and the second hole **56**. The spring thrust element **26** extends outwardly from the lock body **20** and bears against a periphery **52** of the first hole **50b**. The flange **24** extends outwardly from the lock body **20** and bears against the spring thrust element **26**. The balls **46a,46b** protrude radially outwards from the lock body **20**, under a surface **A15** of the second part **54**, in contact with an edge **A16** of the second hole **56** in the second part **54**, and bears radially inwards against a lateral retaining surface **A17** of the head **32**. However, the lateral retaining surface **A17** is not tapered to maintain the piston **30** in a locked position.

Ferreol-Ragotin teaches, in Figure 8, balls **13'** bearing radially inwards against a tapered lateral retaining surface (part of **12'A**) of the head **12'A** to retain a ball anchoring system in a locked position. Therefore, as taught by Ferreol-Ragotin, it would have been obvious to one of ordinary skill in the art at the time the invention was made to make the lateral retaining surface **A17** tapered in order to maintain the ball anchoring system of Boyce et al. in a locked position.

Claims 2 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boyce et al., 5,988,364 (see marked-up attachment), in view of Ferreol-Ragotin, 5,458,431, as applied to claims 1 and 12 above, and further in view of Weskamp et al., 4,906,123.

Regarding claims 2 and 13, Boyce et al., as modified above, fails to disclose the spring thrust element **26** encircling the lock body **20**. However, the spring thrust element **26** is not a tapered washer. Wekamp teaches a spring thrust element **18** being a tapered washer to bias a piston in compression and in a forward direction. Applicant is reminded that a Bellville washer, a coil spring, or elastomeric members are equivalent components in the art, which act to bias a piston (see Stiner, 4,402,469; col. 5, lines 43-46). Therefore, as taught by Weskamp et al., it would have been obvious to one of ordinary skill in the art at the time the invention was made to make the spring thrust element a tapered washer to bias the piston.

Claims 5 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boyce et al., 5,988,364 (see marked-up attachment), in view of Ferreol-Ragotin, 5,458,431, as applied to claims 1 and 12 above, and further in view of Brewster, 2,373,083.

Regarding claims 5 and 16, Boyce et al., as modified above, disclose the piston **30** including a rod **36**. The rod has an outer end and an inner end. The inner end of the

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rod is connected to the head **32** of the piston **30**. The outer end of the rod has means **42** for gripping the rod **36** to displace the piston to an unlocked condition. However, the outer end of the rod **36** does not extend outwardly of the lock body **20**. Brewster teaches in Figure 3 an outer end of the rod **12** extending outwardly of the body **11** to act as a handle, which allows a user to move the piston to an unlocked condition using the user's thumb or finger (col. 4, lines 44-67). Therefore, as taught by Brewster, it would have been obvious to one of ordinary skill in the art at the time the invention was made to make the outer end of rod extend outwardly of the body so that an user is able to move the piston to an unlocked condition with the user's finger or thumb.

Allowable Subject Matter

Claims 18-21 are allowed.

Claims 3, 4, 6, 14, 15, 17 and 22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

regarding claim 3, the prior art of record does not disclose or suggest an assembly system comprising a snap ring encircling the body;

regarding claims 4 and 15, the prior art of record does not disclose or suggest an assembly comprising one lug or more lugs attached to a first part and holding a flange of a basically cylindrical lock body;

regarding claim 6, this claim depends from claim 3;

regarding claim 14, the prior art of record does not disclose or suggest a ball anchoring device together with a snap ring and a diameter of at least one of the holes of the first part or the second part is smaller than an outer diameter of the snap ring;

regarding claim 18, the prior art of record does not disclose or suggest a ball anchoring device comprising a slidable snap ring; Duran 3,980,327, teaches a slidable sleeve member 39; however, the sleeve member is not a snap ring;

regarding claims 19-21, these claims depend from claim 18; and,

regarding claim 22, the prior art of record does not disclose or suggest a device together with a snap ring so that displacement of the tool, applying a thrust force to a piston, causes the snap ring to move on a body.

Response to Arguments

Applicant's arguments with respect to Schott and Depew have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

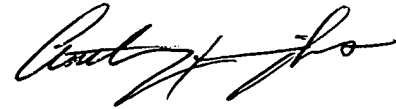
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ernesto Garcia whose telephone number is 703-308-8606. The examiner can normally be reached from 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne H Browne can be reached on 703-308-1159. The fax phone

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numbers for the organization where this application or proceeding is assigned are 703-872-9326 for regular communications and 703-872-9327 for After Final communications. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-2168.

Lynne H. Browne
Supervisory Patent Examiner
Technology Center 3600



Anthony Knight
Supervisory Patent Examiner
Group 3600

E.G.

February 11, 2004

Attachment: one marked-up copy of Boyce et al., 5,98,364.

